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(72) Inventors:
• Ding, Ni
Plymouth, Minnesota 55446 (US)
• Trinh, Tuyethoa Thi
Somerset, Minnesota 55113 (US)
• Raeder-Devens, Jennifer E.
St. Paul, Minnesota 55105 (US)

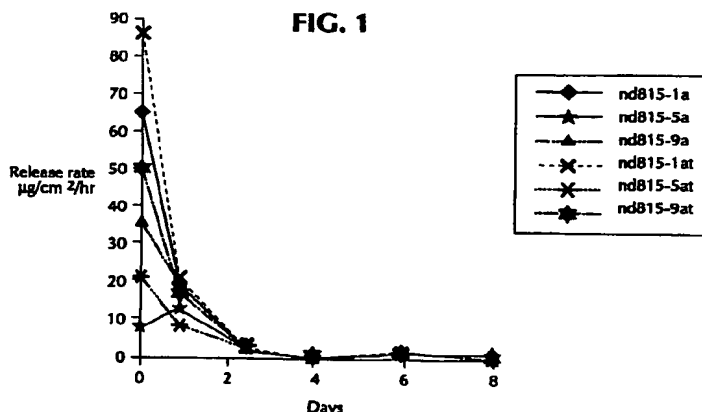
(30) Priority: 30.04.1997 US 841747

(71) Applicant: **SCHNEIDER (USA) INC.**
Plymouth, Minnesota 55442 (US)

(54) **Drug-releasing coatings for medical devices**

(57) The invention is directed to medical devices having a drug-releasing coating and methods for making such coated devices. The coating permits timed or prolonged pharmacological activity on the surface of medical devices through a reservoir concept. Specifically, the coating comprises at least two layers: an outer layer containing at least one drug-ionic surfactant complex overlying a reservoir layer containing a polymer and the drug which is substantially free of an ionic surfactant. Upon exposure to body tissue of a medical device covered with such coating, the ionically bound drug in the outer layer is released into body fluid or tissue. Following release of such bound drug, the ionic surfactant binding sites in the outer layer are left vacant. To maintain the pharmacological activity after delivery

of the ionically bound drug, additional amounts of the drug are embedded or incorporated in the reservoir layer in a manner which allows the drug, which is substantially free of ionic surfactants, to complex with the vacant binding sites of the ionic surfactant of the outer layer. As a result, the surface of the medical device is enriched with the drug to provide sustained pharmacological activity to prevent the adverse reaction due to the presence of the medical device. The invention is further directed to medical devices with stabilized drug-releasing coatings. The coatings are stabilized by exposure to a low energy, relatively non-penetrating energy source, e.g., gas plasma or an electron beam energy source.





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Application Number
EP 98 20 1276

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15 June 2000	Examiner Böhm, I
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EUROPEAN SEARCH REPORT

Application Number
EP 98 20 1276

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Place of search THE HAGUE		Date of completion of the search 15 June 2000	Examiner Böhm, I
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